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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, NHON D

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 03/15/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/628,173

Applicant(s)

MO ET AL.

Examiner

Nhon (Gary) D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 9, 14-16, 19-22, 25, 26, 29, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagarajan (US 6,665,098).

As per independent claim 1, Nagarajan teaches an imaging system comprising:

a display monitor (col. 4, line 53);

an operator interface comprising a multiplicity of control input devices for setting respective image processing parameters (col. 3, lines 8-10);

a scanning subsystem for acquiring raw data (col. 2, line 66 – col. 3, line 5); and

an image processing system for processing acquired raw data to display an image frame of imaging data on said display monitor (col. 2, line 66 – col. 3, line 5), said image processing system comprising memory for storing values of image processing parameters (col. 2, lines 25-26) and a computer programmed to perform the following steps:

controlling said display monitor to display a first image frame of imaging data processed in accordance with values of first and second image processing parameters stored in said memory prior to display of said first image frame (col. 4, line 62 – col. 5, line 30);

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monitoring the state of said control input devices, during a predetermined time period, to detect a change in state of a control input device that results in said image processing system generating a changed value of said first image processing parameter different than said stored value of said first image processing parameter (col. 5, lines 31-44);

controlling said display monitor to display a second image frame of imaging data processed in accordance with said changed value of said first image processing parameter, said first and second image frames being based on the same acquired raw data; and storing said changed value of said first image processing parameter in said memory (col. 3, lines 16-34).

As per claims 2 and 3, which are dependent on claim 1 and 2, respectively, Nagarajan teaches the control input device having said changed state controls the value of said second image processing parameter and wherein the contrast in said displayed image frames is a function of at least said first and second image processing parameters (col. 3, lines 12-15).

As per claim 4, which is dependent on claim 1, Nagarajan teaches the first image processing parameter is a gray scale level (col. 5, line 66 – col. 6, line 23).

As per claims 5 and 6, which are both dependent on claim 4, since Nagarajan's system is an image processing system with gray scales to handle pixel gray image (col. 5, line 66 – col. 6, line 23), a gray map must be in present to store values of the gray-scale level. Therefore, it is inherent in Nagarajan's system that the computer is further programmed to generate a gray map as a function of a stored changed value of said gray-scale level and the computer is further

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programmed to generate a gray map as a function of an average of a multiplicity of stored changed values of said gray-scale level.

As per claim 9, which is dependent on claim 3, Nagarajan teaches the first image processing parameter is a gray scale level and said second image processing parameter is gray map selection (col. 5, line 66 – col. 6, line 23).

As per independent claim 14, it is rejected under the same rationale as claim 1.

As per claim 15, which is dependent on claim 14, Nagarajan teaches the new value of said first image processing parameter is an average of a plurality of values, said plurality including at least said changed value of said first image processing parameter and said stored value of said first image processing parameter (col. 3, lines 16-34).

As per claim 16, which is dependent on claim 14, it is a similar scope to claim 2; therefore, it should be rejected under the same rationale.

As per independent claim 19, it is a similar scope to claim 1; therefore, it should be rejected under the same rationale.

As per claim 20, which is dependent on claim 19, it is a similar scope to claim 2; therefore, it should be rejected under the same rationale.

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As per claim 21, which is dependent on claim 20, it is a similar scope to claim 3; therefore, it should be rejected under the same rationale.

As per claim 22, which is dependent on claim 21, it is a similar scope to claim 5; therefore, it should be rejected under the same rationale.

As per independent claim 25, it is rejected under the same rationale as claim 1.

As per claim 26, which is dependent on claim 25, it is a similar scope to claim 2; therefore, it should be rejected under the same rationale.

As per independent claim 29, it is rejected under the same rationale as claim 1.

As per claim 30, which is dependent on claim 29, it is a similar scope to claim 2; therefore, it should be rejected under the same rationale.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 8, 17, 23, 27, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan in view of Jensen et al. ("Jensen", US 6,175,614).

As per claims 7 and 8, which are both dependent on claims 3, Nagarajan teaches the first image processing parameter is a gray scale level (col. 5, line 66 – col. 6, line 23); however, Nagarajan does not disclose the second image processing parameter is dynamic range and gain. Jensen discloses a gray scale range is optimized by to assure a correct gain and a proper dynamic range (col. 2, lines 6-15 and col. 5, lines 25-30). It would have been obvious to an artisan at the time of the invention to use the teaching from Jensen of including dynamic range and gain as the second image processing parameter in Nagarajan's system since it would optimize the gray scale range.

As per claim 17, which is dependent on claim 16, Nagarajan teaches the first image processing parameter is a gray scale level and said second image processing parameter is gray map selection (col. 5, line 66 – col. 6, line 23). Nagarajan, however, does not disclose the second image processing parameter is taken from the group consisting of dynamic range and gain. Jensen discloses a gray scale range is optimized by to assure a correct gain and a proper dynamic range (col. 2, lines 6-15 and col. 5, lines 25-30). It would have been obvious to an artisan at the time of the invention to use the teaching from Jensen of including dynamic range and gain as the second image processing parameter in Nagarajan's system since it would optimize the gray scale range.

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As per claim 23, which is dependent on claim 21, it is a similar scope to claim 17; therefore, it should be rejected under the same rationale.

As per claim 27, which is dependent on claim 26, it is a similar scope to claim 17; therefore, it should be rejected under the same rationale.

As per claim 31, which is dependent on claim 30, it is a similar scope to claim 17; therefore, it should be rejected under the same rationale.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan in view of Jacobi et al. ("Jacobi", US 4,271,389).

As per claim 10, which is dependent on claim 4, Nagarajan does not disclose the changing step comprises the steps of generating and analyzing a pixel intensity histogram of the imaging data in said second image frame. Jacobi discloses an expanded pixel histogram is generated and analyzed (col. 8, lines 36-47). It would have been obvious to an artisan at the time of the invention to use the teaching from Jacobi of generating and analyzing a pixel histogram in Nagarajan's system since it would determine an appropriate mapping function for the selected pixel data.

6. Claims 11, 12, 18, 24, 28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan in view of Hull et al. ("Hull", US 6,665,086).

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As per claim 11, which is dependent on claim 1, Nagarajan does not disclose the computer is further programmed to store said changed value of said first image processing parameter in association with a system user ID inputted via said operator interface. Hull discloses that at col. 4, lines 34-41. It would have been obvious to an artisan at the time of the invention to use the teaching from Hull of storing the changed value of image processing parameter in association with a system user ID inputted via said operator interface in Nagarajan's system since it would allow the system to keep track of the changing records.

As per claim 12, which is dependent on claim 11, modified Nagarajan does not disclose the computer is further programmed to store an application type or exam type in association with said changed value of said first image processing parameter and said system user ID. Hull discloses that at col. 4, lines 42-57. It would have been obvious to an artisan at the time of the invention to use the teaching from Hull of storing an application type or exam type in association with said changed value of said first image processing parameter and said system user ID in modified Nagarajan's system since it would allow the system to keep track of the changing records.

As per claim 18, which is dependent on claim 14, it is a similar scope to claim 11; therefore, it should be rejected under the same rationale.

As per claim 24, which is dependent on claim 19, it is a similar scope to claim 11; therefore, it should be rejected under the same rationale.

As per claim 28, which is dependent on claim 25, it is a similar scope to claim 11; therefore, it should be rejected under the same rationale.

As per claim 32, which is dependent on claim 29, it is a similar scope to claim 11; therefore, it should be rejected under the same rationale.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagarajan in view of Hull et al. ("Hull", US 6,665,086).

As per claim 13, which is dependent on claim 11, modified Nagarajan does not disclose the computer is further programmed to control said display monitor to display a message, prior to said storing step, requesting confirmation from the system user that said changed value of said first image processing parameter should be stored. Examiner takes Official Notice that displaying a confirming message before changing a parameter value is well known in computer art. It would have been obvious to an artisan at the time of the invention to add a confirming message before changing a parameter value in modified Nagarajan's system since it would prevent the user from inadvertently modifying to the image processing parameters.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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US 6318637 B1 to Stoner, Paul Douglas discloses multi-focal length imaging based portable dataform reader.

US 6318635 B1 to Stoner, Paul D. discloses multi-focal length imaging based portable dataform reader.

US 5877819 A to Branson, Philip J. discloses managing information in an endoscopy system.

Inquiries

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon (Gary) D Nguyen whose telephone number is 703-305-8318. The examiner can normally be reached on Monday - Friday from 8 AM to 5:30 PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L Kincaid can be reached on 703-308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Nhon (Gary) Nguyen
March 5, 2004

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